

## Pan Li

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### EDUCATION

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**New York University, Stern School of Business**

New York, NY

Ph.D. in Information System

(Expected) May 2023

Advisor: Alexander Tuzhilin

**University of Science and Technology of China**

Anhui, China

B.S., Mathematics & Computer Science (Special Class for the Gifted Young)

June 2017

### INDUSTRY EXPERIENCE

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Visiting Researcher, Google Brain

2022-2023

Research Intern, Alibaba Inc.

2019; 2020-2021

Research Intern, Sinovation Ventures

2017

Research Intern, Baidu Inc.

2016-2017

### RESEARCH INTERESTS

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- Personalization: Recommender Systems
- Artificial Intelligence: Deep Learning, Natural Language Processing
- Quantitative Marketing: Consumer Behavior Modeling
- Causal Inference: Controlled Experiment

### JOURNAL PUBLICATIONS

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[1] **Pan Li**, Brian Brost, Alexander Tuzhilin, “Adversarial Learning for Cross-Domain Recommendations”, Forthcoming at *ACM Transactions on Intelligent Systems and Technology (TIST)* (2022)

[2] **Pan Li**, Alexander Tuzhilin, “Dual Metric Learning for Effective and Efficient Cross-Domain Recommendations”, Forthcoming at *IEEE Transactions on Knowledge and Data Engineering (TKDE)* (2021)

[3] **Pan Li**, Alexander Tuzhilin, “Learning Latent Multi-Criteria Ratings from User Reviews for Recommendations”, Forthcoming at *IEEE Transactions on Knowledge and Data Engineering (TKDE)* (2020)

[4] **Pan Li**, Alexander Tuzhilin, “Latent Unexpected Recommendations”, *ACM Transactions on Intelligent Systems and Technology (TIST)*, 11(6), pp.1-25 (2020)

[5] Chen Zhu, Hengshu Zhu, Hui Xiong, Chao Ma, Fang Xie, Pengliang Ding, **Pan Li**, “Person-Job Fit: Adapting the Right Talent for the Right Job with Joint Representation Learning”, *ACM Transactions on Management Information Systems (TMIS)* 9, no. 3: 1-17 (2018)

## JOURNAL PAPERS UNDER REVIEW

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- [1] **Pan Li**, Alexander Tuzhilin, “When Variety-Seeking Meets Unexpectedness: Incorporating Variety-Seeking Behavior into Design of Unexpected Recommender Systems” Under Third-Round Review at *Information System Research (ISR)* (after Major Revision)
  
- [2] **Pan Li**, Alexander Tuzhilin, “Exploring and Exploiting Consumer Preferences through Deep Reinforcement Learning and Latent Trajectory Modeling in Recommender Systems” Under Second-Round Review at *Management Information System Quarterly (MISQ)* (after Major Revision)
  
- [3] Moshe Unger, **Pan Li**, Maxime Cohen, Brian Brost, Alexander Tuzhilin, “Deep Multi-Objective Multi-Stakeholder Music Recommendation”, Under Second-Round Review at *Information System Research (ISR)* (after Major Revision)
  
- [4] **Pan Li**, Alexander Tuzhilin, “Killing Two Birds with One Stone: Deep Reinforcement Learning for Optimizing Multiple Objectives in Recommender System”, Reject and Resubmit at *Information System Research (ISR)*
  
- [5] Moshe Unger, **Pan Li**, Shahana Sen, Alexander Tuzhilin, “Reconstructing Universal Embeddings of Customers from Domain-Specific Embeddings”, Major Revision at *ACM Transactions on Management Information Systems (TMIS)*.

## WORKING PAPERS

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- [1] **Pan Li**, Alexander Tuzhilin, “I want to know more!”: Measuring the Impact of Triggering Consumer Curiosity in Recommender System”, to be submitted to *Marketing Science (MKSC)*
  
- [2] **Pan Li**, Ying Yang, Maofei Que, Ping Yang, Alexander Tuzhilin, “Dual Contrastive Learning for Efficient Static Feature Representation in Recommender System”, in preparation for submission to *Marketing Science (MKSC)*

## TOP-TIER CONFERENCE PUBLICATIONS

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- [1] **Pan Li**, Zhichao Jiang, Maofei Que, Yao Hu, Alexander Tuzhilin, “Dual Attentive Sequential Learning for Cross Domain Click-Through Rate Prediction”, *Proceedings of the 27th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2021)* Full Paper with Oral Presentation; Acceptance Rate: 15.4%
  
- [2] **Pan Li**, Maofei Que, Zhichao Jiang, Yao Hu, Alexander Tuzhilin, “PURS: Personalized Unexpected Recommender System for Improving User Satisfaction”, *Proceedings of the 14th ACM Conference on Recommender System (RecSys 2020)* Full Paper with Oral Presentation; Acceptance Rate: 18%
  
- [3] **Pan Li**, Alexander Tuzhilin, “DDTCDR: Deep Dual Transfer Cross Domain Recommendation”, *Proceedings of the 13th International Conference on Web Search and Data Mining (WSDM 2020)* Full Paper with Oral Presentation; Acceptance Rate: 15%

[4] **Pan Li**, Alexander Tuzhilin, “Towards Controllable and Personalized Review Generation”, *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing (EMNLP 2019)*

*Full Paper with Poster Presentation; Acceptance Rate: 24.6%*

[5] **Pan Li**, Alexander Tuzhilin, “Latent Multi-Criteria Ratings for Recommendations”, *Proceedings of the 13th ACM Conference on Recommender Systems (RecSys 2019)*

*Short Paper with Poster Presentation; Acceptance Rate: 19%*

[6] **Pan Li**, Alexander Tuzhilin, “Latent Modeling of Unexpectedness for Recommendations”, *Proceedings of the 13th ACM Conference on Recommender Systems (RecSys 2019)*

*Late-Breaking Result Track Paper with Poster Presentation; Acceptance Rate: 31%*

[7] Tong Xu, Hengshu Zhu, Chen Zhu, **Pan Li**, Hui Xiong, “Measuring the popularity of job skills in recruitment market: A multi-criteria approach”, *Proceedings of Thirty-Second AAAI Conference on Artificial Intelligence (AAAI 2018)*

*Full Paper with Poster Presentation; Acceptance Rate: 24.6%*

## TEACHING EXPERIENCE

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### New York University

New York, NY

*Instructor for the undergraduate course “Data Science for Business”*

Summer 2022

- Teaching Evaluation: **5.0/5.0** (instructor) **4.7/5.0** (course)
- In-person interactive teaching based on lectures, hands-on sessions and case studies
- 15 students enrolled (undergraduate-level)

### New York University

New York, NY

*Teaching Fellow for “Introduction to AI & Its Applications in Business”*

Spring 2020, 2021

- Co-design the class materials, homework assignments and final project with the instructor
- Lead of the lab session for 60 students (MSBA and MBA-level)

## INVITED TALKS

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[1] “Recent Progress on Consumer Exploration”, *Invited Talk at Google Brian, July 2022*

[2] “I want to know more!”: Measuring the Impact of Triggering Consumer Curiosity in Recommender System”, *ISMS Marketing Science Conference, Virtual, June 2022 (ISMS 2022)*

[3] “Reconstructing Universal Embeddings of Customers from Domain-Specific Embeddings”, *ISMS Marketing Science Conference, Virtual, June 2022 (ISMS 2022)*

[4] “Dual Learning for Cross-Domain Recommendations”, *Invited Talk at TikTok, April 2022*

[5] “Exploring and Exploiting Consumer Preferences through Deep Reinforcement Learning and Latent Trajectory Modeling in Recommender Systems”, *The 31st Workshop on Information Technology and Systems, Austin, TX, December 2021 (WITS 2021 Doctoral Consortium)*

[6] “Multi-Faceted Consumer Preferences: Incorporating Unexpectedness and Cross-Domain Information into Design of Recommender System”, *The 31st Workshop on Information Technology and Systems, Austin, TX, December 2021 (WITS 2021)*

[7] “Unexpectedness in Recommender Systems”, *Invited Talk at Alibaba, September 2021*

[8] “Leveraging Multi-Faceted User Preferences for Improving Click-Through Rate Predictions” *ACM Conference on Recommender Systems, Virtual, September 2021 (RecSys 2021 Doctoral Consortium)*

[9] “When Variety-Seeking Meets Unexpectedness: Incorporating Variety-Seeking Behavior into Design of Unexpected Recommender Systems”, *Conference on Information Systems and Technology, Anaheim, CA, October 2021 (CIST 2021)*

[10] “Incorporating Dual Metric with Sequential Learning for Cross-Domain Recommendations”, *Conference on Information Systems and Technology, Anaheim, CA, October 2021 (CIST 2021)*

[11] “When Variety-Seeking Meets Unexpectedness: Incorporating Variety-Seeking Behavior into Design of Unexpected Recommender Systems”, *ISMS Marketing Science Conference, Virtual, June 2021 (ISMS 2021)*

[12] “Adversarial Learning for Cross-Domain Recommendations”, *The 30th Workshop on Information Technology and Systems, Virtual, December 2020 (WITS 2020)*

[13] “Will Unexpectedness Help Recommendations and When: Evidence from A Large-Scale Online Controlled Experiment”, *Conference on Information Systems and Technology, Virtual, October 2020 (CIST 2020)*

[14] “Dual Learning for Cross-Domain Recommendations: Improving Efficiency and Effectiveness of Recommender Systems” , *Conference on Information Systems and Technology, Virtual, October 2020 (CIST 2020)*

[15] “Hybrid Utility Function for Unexpected Recommendations”, *International Conference on Web Search and Data Mining, Houston, TX, February 2020 (WSDM 2020 Doctoral Consortium)*

## AWARDS

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NYU Fubon Doctoral Fellowship	2022-2023
INFORMS Marketing Science Doctoral Consortium	2022
WITS Conference Best Dissertation Award	2021
WITS Conference Best Student Paper Runner-Up Award	2021
SIGIR Travel Award	2020
NYU Stern PhD Fellowship	2017-2022

## **ACADEMIC SERVICE**

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**Program Committee:** INFORMS Workshop on Data Science, ACM Conference on Recommender System, Empirical Methods in Natural Language Processing

**Invited Reviewer:** Management Science, IEEE TKDE, ACM TIST, ACM TMIS, IEEE Intelligent System, ACL, EMNLP, ICIS, CIST, WITS

## **SELECTED COURSEWORK**

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- Research Seminar in Data Science (by Foster Provost)
- Research Seminar in Digital Economics (by Arun Sundararajan)
- Research Seminar in IT & Organizations: Social Perspectives (by Natalia Levina)
- Causal Inference (by Jennifer Hill)
- Econometrics I & II (by William Greene)
- Deep Reinforcement Learning (by Lerrel Pinto)
- Convex Optimization (by Jiawei Zhang)
- Stochastic Calculus (by Paul Bourgade)
- High Performance Machine Learning (by Alessandro Morari)